

The Early Life-Course Approach to Non-Communicable Diseases in the Post-2015 Sustainable Development Goal Context

Scale Of The Issue

Non-communicable diseases (NCDs, such as diabetes, cardiovascular diseases, chronic lung diseases and cancer, plus mental health and neurological disorders) affect all countries, and people of all ages, and form arguably the single greatest threat to global health in the 21st century. NCDs can develop gradually, reducing the health capital of the population and making individuals and families less resilient, hastening dependency on health care resources and development of toxic stress. Preventable NCDs can strike children and families suddenly, as in the case of injuries, congenital conditions, and complications of birth asphyxia. Children and adolescents affected or at risk of developing NCDs, are an under-recognised but critical group for the future of sustainable global health and prosperity.

The NCDs increasingly apparent in young people will have dramatic effects on their lives and on the societies in which they live. The omnibus resolution on NCDs adopted by UN Member States at the 66th World Health Assembly in 2013 recognises that children can die from treatable NCDs, including rheumatic heart disease, type 1 diabetes, asthma, and leukaemia. Addressing the prevention and treatment of NCDs early in the life-course accords with the right of the child to achieve the highest attainable standard of health, as enshrined in UN Convention on the Rights of the Child.

Many unhealthy behaviours that underlie NCDs start during childhood and adolescence. They include the main modifiable NCD risk factors - physical inactivity, tobacco use and secondhand smoke exposure, unhealthy diets, and the harmful use of alcohol - strongly linked to morbidity, mortality, and disability in the short- and longer-term. For example the doubling, or in some cases tripling, of childhood obesity rates in many countries, threatens to reverse recent gains in child health as well as predisposing children and adolescents to unhealthy adult lives. In addition, children born to women with diabetes and cardiovascular diseases are predisposed to developing NCDs themselves, perpetuating the burden of disease across generations. For example, gestational diabetes mellitus, which affects more than 20% of pregnancies in some populations, also predisposes the child to developing metabolic disorder later in life.

The life-course approach focuses on how multiple determinants interact to affect health throughout life and across generations. Health is considered as a dynamic continuum rather than a series of isolated health states. The approach highlights the importance of transitions, linking each stage to the next, of defining protective risk factors, of prioritizing investment in health care and social determinants of health, and of gender equality and the promotion of human rights early in the life-course.

A Focus On Early Interventions

With the trajectory of NCD risk starting early in the life-course, early intervention will have the greatest impact (Figure 1), especially given that interventions targeted only at modifying behaviours in adulthood have had variable and disappointing results. In addition to actions on prevention, access to early diagnosis, treatment and care of children and adolescents with NCDs is also vital and has a direct impact on the reduction of preventable death and disability. Simple, cost-effective public health measures including provision of sustainable newborn screening and education programs can have a major positive impact on health outcomes. Other early interventions improve long-term outcomes, for example early support for communication/ health literacy and behavioural initiatives, along with parent education, can be critical for improving the health and developmental outcomes of children.

Many government public health bodies, NGOs and health professionals have been slow to appreciate this change in thinking and the necessary actions which follow from it. Interventions to promote healthy development through childhood and adolescence and to encourage healthy behaviours in adults are not alternatives: they are inextricably linked because a healthy start to life will favour better responses to later interventions.

FIGURE 1

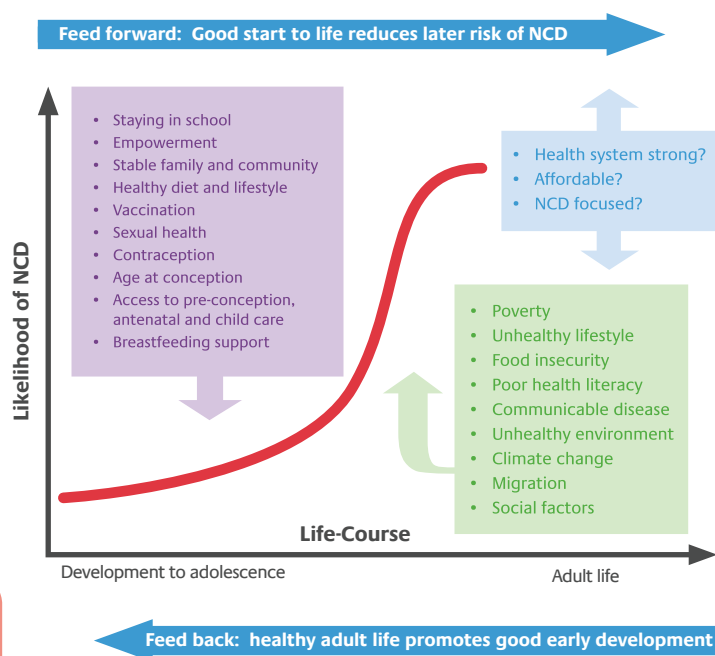


Figure 1 Courtesy of Professor Mark A Hanson, University of Southampton, Southampton General Hospital, UK



The NCD Alliance
Putting non-communicable diseases
on the global agenda

Adopting A Life-Course Approach to NCDs in the Post-2015 Era

Sustainable human development in the post-2015 era demands an ambitious vision that enshrines the values of human rights, equality and sustainability and reinforces the critical role of health across the entire life-course. This will help to achieve sustainable, equitable and inclusive change and the impact envisioned by the UN High Level Meeting and Political Declaration on Prevention and Control of NCDs in 2011.

One formulation of an overarching health goal for inclusion in the post-2015 sustainable development framework that captures this holistic vision of health at all ages is 'maximising healthy lives at all stages of life.' Such a goal is universally-applicable, would not place health conditions in competition with one another, and is measurable (see Box 1). It reinforces the need to integrate a life-course approach to NCDs with plans, programs and policies at all levels. Supporting this goal would be a subset of health targets focused both on the unfinished business of the health-related MDGs, and on reducing the burden of NCDs. Building upon the recently agreed global monitoring framework for NCDs, corresponding indicators would encompass early interventions for maternal, newborn and child health as well as adolescent health literacy and behaviours, thereby reducing the global burden of NCDs as part of the Sustainable Development Goals (SDGs), accelerating progress towards the health-related Millennium Development Goals (MDGs) and addressing emerging NCD challenges.

The post-2015 framework should build on existing successful policies, platforms and infrastructure in reproductive and sexual health and infectious diseases, and facilitate a multisectoral approach to health across sectors as diverse as education, urban planning, agriculture and trade. This would include implementing legislation and regulatory measures that have proved effective in protecting young people from risk factors such as marketing unhealthy food and beverages and tobacco products. It also has significant implications for achieving inclusive sustainable human development both by reducing the divide in social equity and strengthening national economies.

The outcomes-focused goal of 'Maximising healthy lives at all stages of life' captures the health dimension of sustainable development by measuring healthy life expectancy (HALE) throughout the life-course. HALE is defined by WHO as "the average number of years that a person can expect to live in full health by taking into account years lived in less than full health due to disease and/or injury". HALE from birth is a key indicator of the state of a nation's health, measuring mortality, morbidity and disability at all ages and for all causes. It also relates to social and economic sustainability.

Eleven Early Life-Course Intervention Targets

- Reduce smoke exposure and tobacco, alcohol and drug use among children and adolescents
- Reduce preventable NCDs, including those from injuries and birth asphyxia.
- Promote health literacy, diet and physical activity in children and young couples
- Ensure healthy pregnancy – to reduce GDM and other pregnancy conditions
- Promote exclusive breastfeeding for at least the first six months of life
- Ensure provision of newborn screening programs, measurement of biomarkers of later NCD risk
- Optimise child growth (reducing stunting and obesity), neurocognitive and immune function
- Ensure access to quality, equitable, culturally appropriate education and vocational training
- Ensure access to affordable NCD technologies and essential medicines for people of all ages
- Empower and engage young people as stakeholders and agents of change
- Regulate advertising and marketing of unhealthy foods and beverages aimed at young people.

